DEVELOPMENT REVIEW BOARD REPORT



MEETING DATE: February	ITEM No					
CASE NUMBER/ PROJECT NAME	72-DR-2005 Pima Road Realignment	Design				
LOCATION	Pima Road, from the Loop 101 to Deer Valley Road.					
REQUEST	Request approval of site plan, road improvements, wall details/design, and landscape plan for the realignment of Pima Road from Loop 101 (Pima Road) to Deer Valley Road.					
OWNER	City of Scottsdale 480-312-7099	Engineer	Entellus 602-244-2566			
ARCHITECT/ DESIGNER	Logan Simpson Design 480-967-1343	Applicant/ Coordinator	Alex McLaren City of Scottsdale			

BACKGROUND

Zoning.

As a roadway, there is no applicable zoning. Zoning districts along this roadway segment include I-1, C-2, PNC, R-4, R1-10 and R1-43 all within the ESL overlay.

480-312-7099

Context.

The site is located along the new and existing alignment of Pima Road from the interchange with the Loop 101 freeway north to Thompson Peak Parkway. Roughly 60% of the frontage of this roadway is currently developed with low to medium density residential neighborhoods and a retail center. The remaining 40% is vacant land that will be built with retail, office and industrial uses in the future

As the road passes to the north from the freeway interchange it goes through a number of master planned developments, including Core South (State Lands), DC Ranch, Ironwood Village, and Grayhawk.

APPLICANT'S PROPOSAL

Applicant's Request.

The application is for the various aesthetic treatments for improvements

associated with a major road project.

DISCUSSION

This proposal includes two of the four major projects that will improve this corridor. The two included in this application are the construction of a new alignment for Pima Road from the freeway interchange north to Hualapai Road. There are existing improvements for about 2,000 feet along this right of way in the Ironwood Village development, but these will be extensively upgraded. The second portion of this proposal will add two lanes by reducing the width of the

median from Hualapai Road north to Thompson Peak Parkway. These additional lanes were anticipated in the design and construction of the existing Pima Road improvements for this segment.

The future components of this large project will be the completion of Pima to ultimate standards from Thompson Peak Parkway north to Pinnacle Peak Road and a series of drainage facilities generally west of the roadway from roughly Hualapai Road south to a large drainage basin. These will come before the Development Review Board in the future.

The realignment of Pima Road to the east of the section line was first proposed in the mid-1980s, after the freeway alignment had been set. When the city began the process to design and construct this roadway several years ago the existing neighborhood in Ironwood Village raised a number of concerns to the city about the project. Over a period of roughly 3 years the city, in concert with these neighbors and adjacent property owners, evaluated several other alignments and the relative impacts of them, including noise, drainage and traffic safety and capacity. This process included presentations to the City Council, Transportation Commission and the HOA Board for Ironwood Village.

This application reflects the outcome of this very extensive process, particularly regarding the noise attenuation system along the Ironwood Village neighborhoods. This solution uses a combination of berms and walls to achieve the height and proximity to the road needed to achieve the desired noise reduction. The scenic corridor width along this frontage was not wide enough to do the attenuation with a berm and a wall would have been dominating over the roadway as well as the neighboring homes. The solution uses a berm that rises with a low retaining wall of stone and then a landscaped slope on the roadside and landscaped slopes on the neighborhood side. This berm is topped with a 6-foot tall stuccoed wall. This achieves the height needed to reduce the road noise yet includes landscaping that reduces the visual impact of the "hard" surfaces. As Pima Road approaches Hualapai Road this wall and berm system will be designed to blend into the existing sound wall along the Pima Acres subdivision to the north.

Where the road crosses a large drainage channel coming out of the Ironwood development, a unique solution has been proposed. The existing bridges will be reconfigured to handle the road lanes and no room will be left for the pedestrian walk along the road. Therefore, a new pedestrian bridge will be installed east of the existing bridges. This bridge will have a concrete wall on its west side that will provide the noise buffering and a metal railing on the east side. This wall and railing will be patterned with a design that evokes the image of Palo Verde tree branches.

The submittal also includes a new entry feature for the Ironwood Village neighborhood at Downing Olson Road. This design includes angular walls, columns, and portals along with terraced planters heavily planted with native trees. This will be the major entrance into the neighborhood and the design has been developed at the request of the HOA Board. These improvements will not be built by the city, instead they will be done by the Ironwood Village HOA.

All of the landscaping will be of native plant materials, stone and decomposed

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granite soil covering. The medians will be landscaped as well as the noise attenuation system at Ironwood Village. However, no landscaping will be installed along the frontages that are currently vacant. The vacant properties will need to build the sidewalk and add any additional landscaping when they are developed.

The drainage structures and all other concrete surfaces will use color integrated concrete to match what has previously been installed along Pima Road. In addition, the headwalls will have an exposed aggregate treatment. All metal railings, poles, etc. will be painted the Western Reserve dark brown.

Along the northern portion of this alignment where the median will be narrowed, little change should be done to the landscaping character of the medians. As needed the existing trees will be relocated and the slopes in the median will be redressed to blend into the existing condition.

The overall intent of this design is to blend into the natural desert character already established along Pima Road. As a "new" roadway, this project will open up new parts of the area, which likely will spur additional development along the corridor.

KEY ISSUES

The singular key issue is the noise attenuation system for the Ironwood Village neighborhood. Although it will tie into an existing sound wall to the north, this should be considered as an exception to scenic corridor treatments. The relocation of a major roadway next to existing homes created a situation that required unique solutions in order to achieve a mutually acceptable solution.

OTHER BOARDS AND COMMISSIONS

The alignment and general design solution have been reviewed by the Transportation Commission and the City Council. The Transportation Commission recommended the proposed alignment and design concept on February 19, 2004. The City Council reviewed the status of the ongoing public involvement regarding the alignment alternatives in the summer of 2003.

STAFF RECOMMENDATION

Staff recommends approval, subject to the attached stipulations.

STAFF CONTACT(S)

Donald Hadder, Sr. Principal Planner Phone: 480-312-2352

E-mail: dhadder@scottsdaleaz.gov

APPROVED BY

Don Hadder, Sr. Report Author

Lusia Galav, AICP

Current Planning Director

Phone: 480-312-2506

E-mail: lgalav@scottsdaleAZ.gov

ATTACHMENTS

- 1. Applicant's Narrative
- 2. Context Aerial
- 3. Zoning Map
- 4. IronWood Village Frontage
- 5. Final Plant List
- 6. Medians
- 7. IronWood Village Entrance
- 8. Sound Barrier Cross-Section
- 9. Northeast Corner of Pima and Union Hills
- 10. Pedestrian Bridge
- 11. Various Aesthetic Treatments
- A. Stipulations/Zoning Ordinance Requirements

Project Narrative

BACKGROUND

The need to adjust the alignment of Pima Road was first identified in the Scottsdale Foothills General Plan adopted by the City Council in December 1984. Accommodating the alignment adjustment was a stipulation of the 1987 Ironwood Village rezoning approval and the 1986 Core South rezoning approval on State Lands. The Ironwood Village developer dedicated right-of-way for the roadway, scenic corridor, and vista washes. In addition, the developer constructed a portion of the roadway alignment, currently known as "Little Pima", adjacent to the subdivision.

On June 12, 2000, a Council Study Session was held to review the proposed alignment changes for Pima Road. At this study session, three alternative alignments were presented by the city's Transportation Department (Alt. A, B, & C). The positives and negatives of each alternative were discussed. During this meeting, the Council and Transportation Department developed three additional alternatives to be further studied (Alt. D, E, & F).

Since the Study Session, these alternatives have been further refined and evaluated. The considerations that were used to screen these alternatives included: safety, land acquisition, and conformance with City Design Standards. Alternative B was eliminated because it was found that it did not meet design standards or safety requirements. Alternatives D, E, and F required excessive land acquisition costs and impacts due to splitting existing parcels. Discussions with representatives of the landowners indicated an unwillingness to sell property.

Alternatives A (General Plan) and C (Modified General Plan, 65-foot offset) were found to meet the basic evaluation criteria and were selected for continued research.

FURTHER COMPARISON OF ALTERNATIVES A & C

In June 2003, the city hired an engineering consulting firm, Entellus, to further evaluate the two viable alternatives. They were evaluated and refined using Quality of Life criteria from local community feedback. The major Quality of Life criteria include: *noise*, *traffic circulation*, *and landscaping/aesthetics*.

In addition, the screening criteria for adjacent neighborhoods were also revisited. The factors of safety, land acquisition, and conformance with city Design Standards and the overall cost were considered. These factors were used to determine whether the alternative was feasible, and if they could be given the full support of city staff and the local community.

The results of the more detailed evaluation of the differences between these two alignments are discussed in this newsletter. The two alternatives were evaluated only in the area between Union Hills and Hualapai since these alignments are basically the same outside these limits.

CONCLUSION

Presently, the right-of-way for the General Plan alignment (Alternative A) is owned by the city. This right-of-way was both purchased and dedicated. Private land owners to the west of Pima Road between Union Hills and Hualapai expressed a strong desire not to shift the road to the 65-foot offset alignment (Alternative C).

Based on the noise analysis, there was little to no benefit in shifting the road to the west. Ironwood Village residents indicated that they had additional concerns, particularly, the ultimate location of Union Hills. Currently, the right-of-way for Union Hills is dedicated, and the north side of the right-of-way is adjacent to existing homes in Ironwood Village and provides little to no buffer. The city and other stakeholders preliminarily agreed to shift the Union Hills alignment 55 feet to the south of its current location, thus allowing the sound abatement berm and wall system to wrap around the corner and provide greater noise protection for several Ironwood Village residents.

Since noise protection will be required for both alignments, comparing the additional cost of Alignment C to the benefit of increasing the distance between the community and the roadway stood as the main issue between the alignments. The preliminary cost estimates of both alternatives were determined. Alignment C was substantially higher due to the additional right-of-way and infrastructure cost and was about 30% over the City's budget. This would require either additional funding or reducing cost by eliminating certain improvements, such as less landscaping and aesthetics.

In a letter dated November 7, 2003 by the Ironwood Village HOA Board of Directors and Pima Road Committee, additional concerns were identified. These concerns were at the Downing Olson intersection. They requested a western shift in the Pima Road improvements to accommodate ingress/egress lanes into and out of Ironwood Village. In addition they asked to shift Downing Olson alignment further to the north, basically centering it between properties.

Based on refinements of the alternative and the input received from the stakeholders, a new alignment was developed. This alignment incorporates all the noise mitigation and aesthetic buffering identified in the previous alternatives. This new alignment is called **Alternative G** – 2004 **Proposed Plan Alignment**. It maximizes the best features of both Alternatives A and C, incorporates the feedback from the stakeholders, and resulting in the following additional benefits:

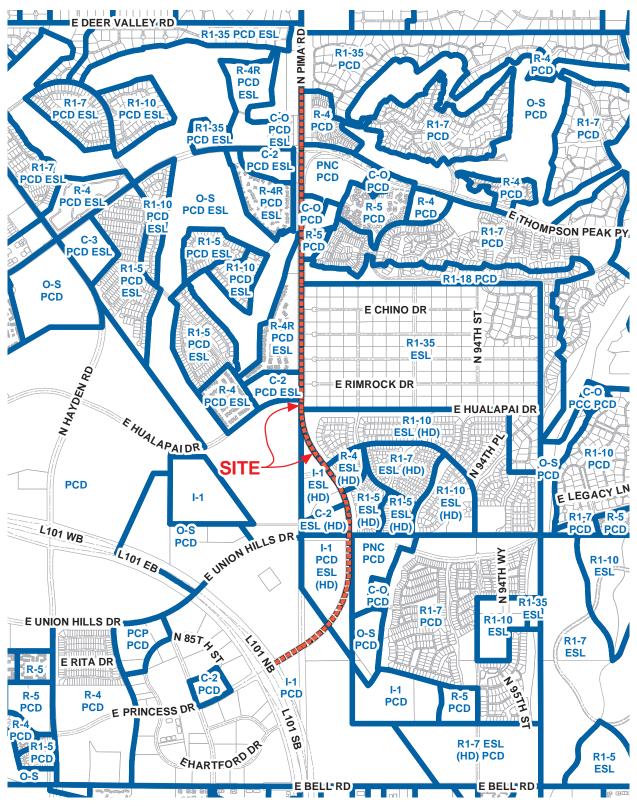
- Provides noise mitigation through aesthetic sound walls and extensive buffering treatment that matches the Ironwood Village Landscape Plan
- Provides more equal buffering around all sides of Ironwood Village by shifting Union Hills south 55 feet
- Saves both of the existing Pima Road bridges south of Downing Olson

- Provides a dedicated right turn lane into the Downing Olson intersection with realigned Pima Road
- Provides a southbound left turn lane into Ironwood Village (no traffic signal)
- Accommodates entry features at Union Hills and Downing Olson
- Minimizes right-of-way needed west of realigned Pima Road
- Maintains an attractive Scenic Corridor along Pima Road



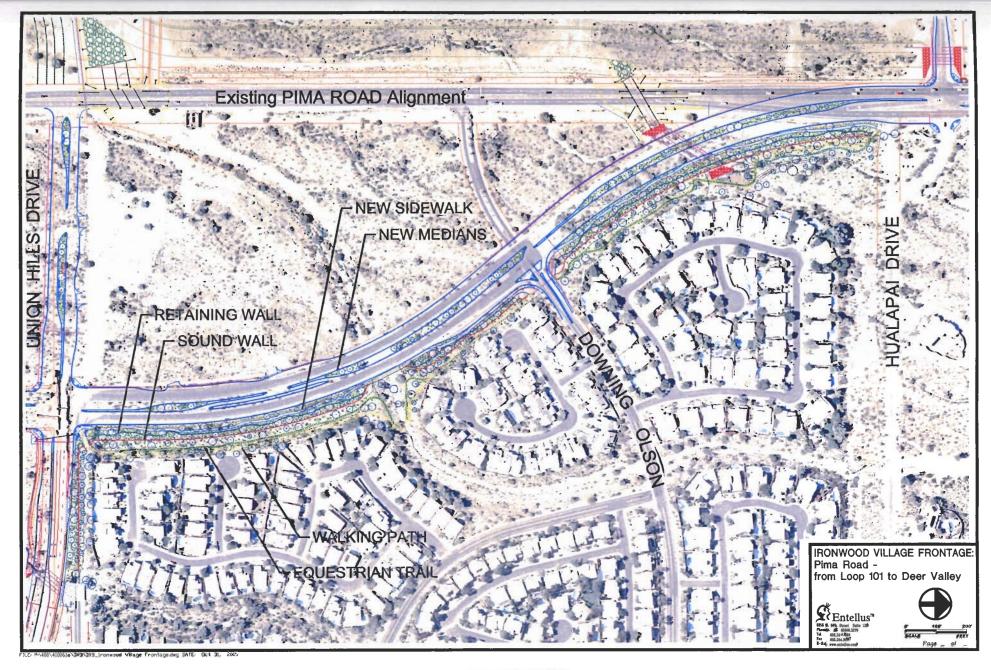
Pima Road Realignment Design

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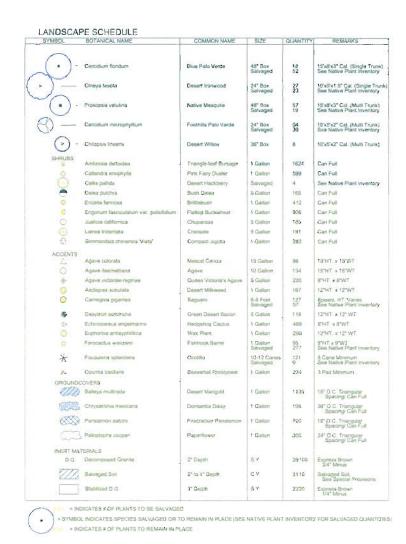


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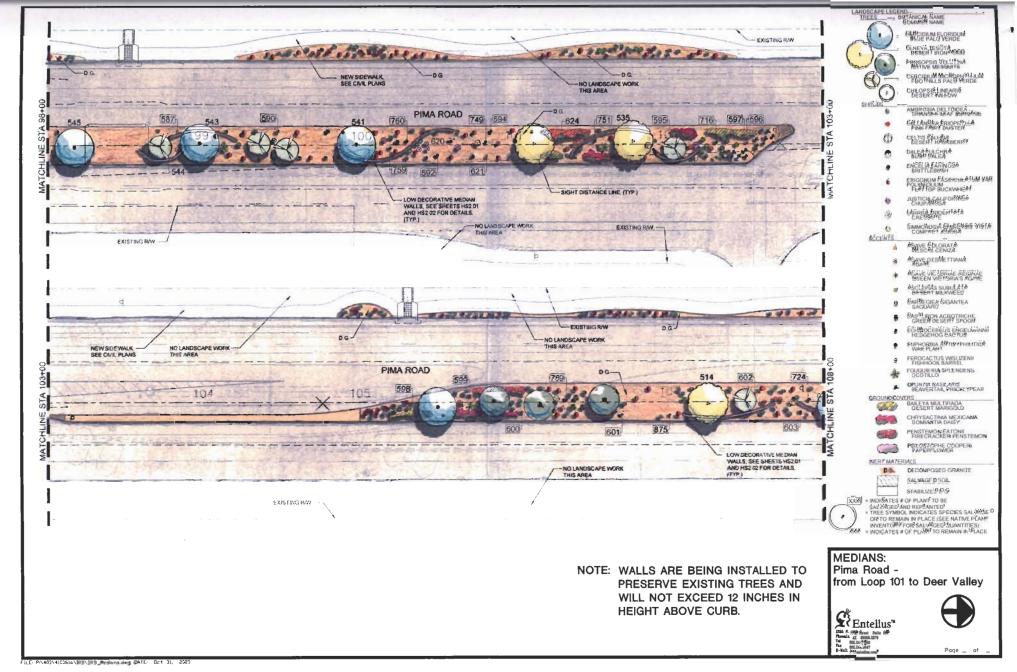
LANDSCAPE LEGEND BLUE PALO VERDE OLNEYA TESOTA DESERT IRONWOOD PROSOPSIS VELUTINA NATIVE MESOUTE CERCIDIUM MICROPHYLLIUM FOOTHILLS PALO VERDE CHILOPSIS LINEARIS DESERT WILLOW AMBROSIA DELTOIDEA TRIANGLE-LEAF BURSAGE CALLANDRA ERIOPHYLLA PINK FAIRY DUSTER CELTIS PALLIDA DESERT HACKBERRY DALEA PULCHRA BUSH DALEA ENCELIA FARINOSA BRITTLEBUSH ERIGONUM FASCICULATUM VAR POLIOFOLIUM FLATTOP BUCKWHEAT JUSTICIA CALIFORNICA CHUPAROSA LARREA TRIDENTATA 65 SIMMONOSIA CHINENSIS VISTA: COMPACT JOJOBA **ACCENTS** AGAVE COLORATA MESCAL CENIZA 6 AGAVE DESMETTUNA AGAVE AGAVE VICTORIAE-REGINAE QUEEN VICTORIA'S AGAVE ASCLEPIAS SUBULATA DESERT MILKWEED 9 CARNEGIEA GIGANTEA SAGUARO BASYLIRON ACROTRICHE GREEN DESERT SPOON ECHINDCEREUS ENGELMANNII NEDGEHOG CACTUS EUPHORBIA ANTISYPHILITICA
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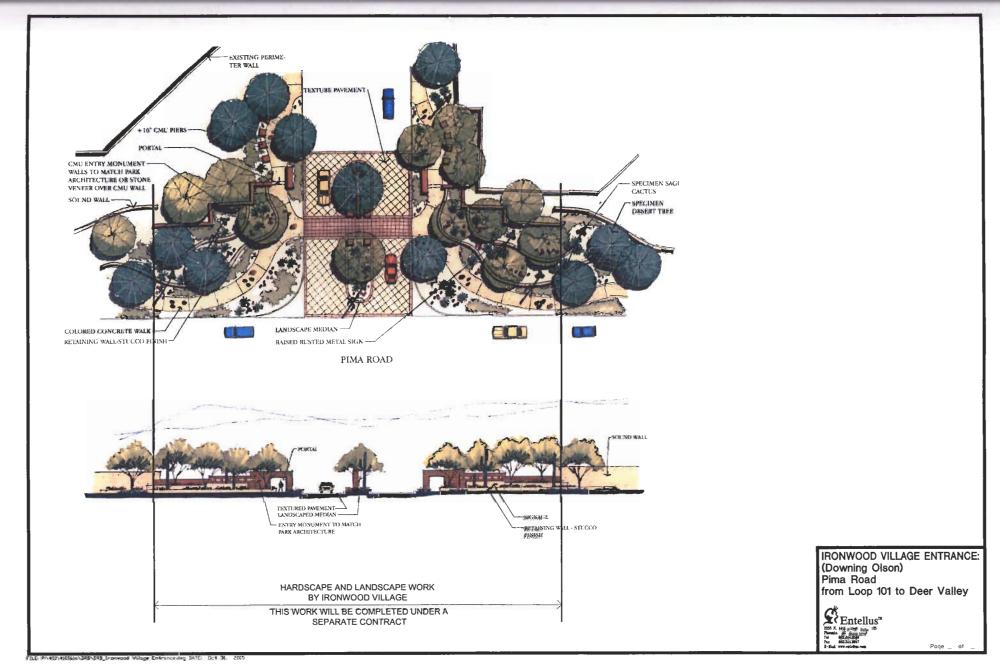
FINAL PLANT LIST: Pima Road from Loop 101 to Deer Valley



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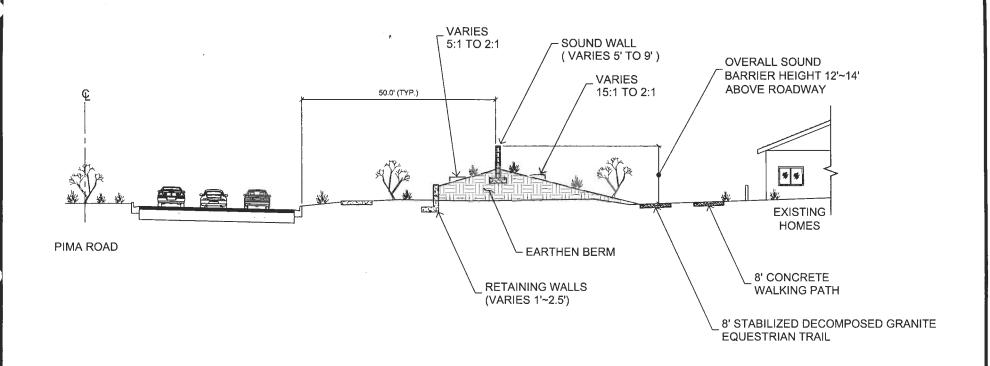


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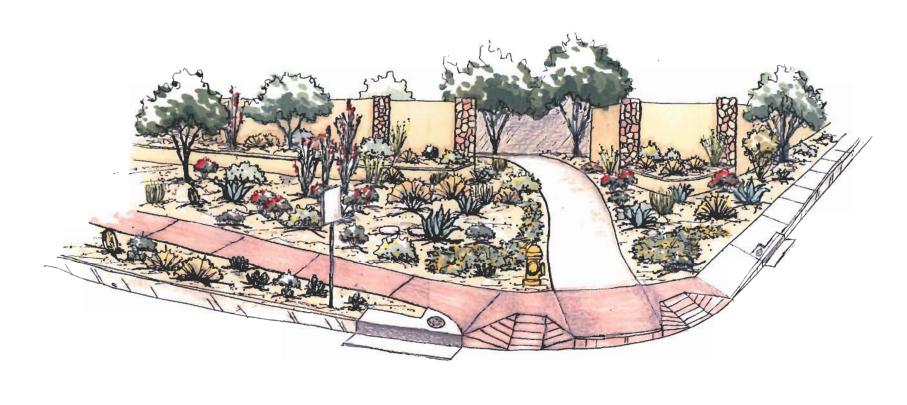
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SOUND BARRIER CROSS-SECTION: Pima Road from Loop 101 to Deer Valley



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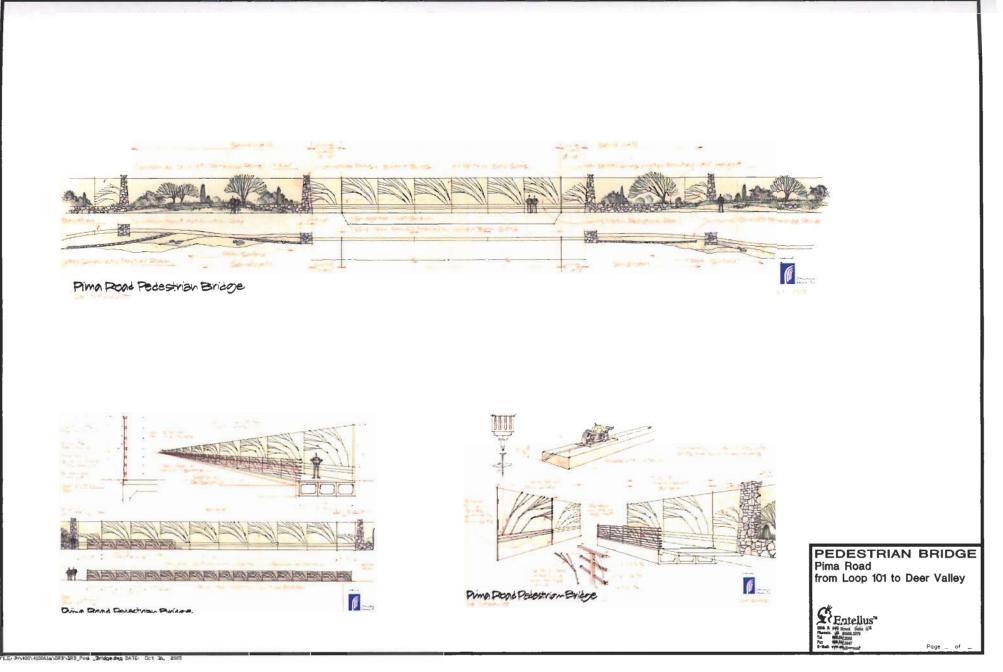


NORTHEAST CORNER OF PIMA AND UNION HILLS Pima Road from Loop 101 to Deer Valley

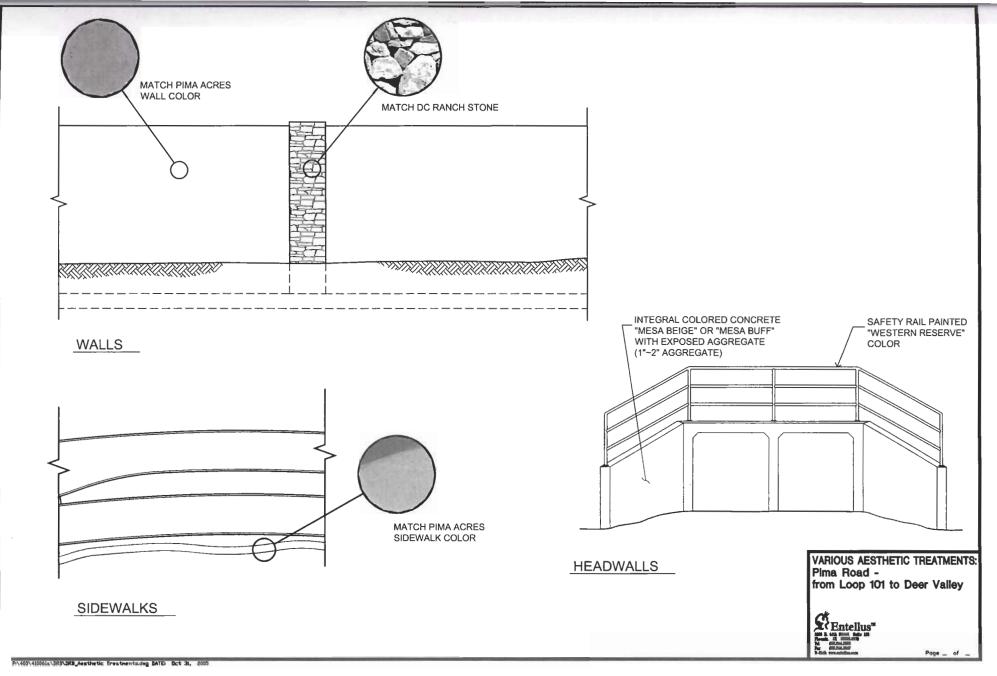


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Stipulations for Case: Pima Road Realignment – Loop 101 to Deer Valley Road Case 72-DR-2005

Unless otherwise stated, the applicant agrees to complete all requirements prior to final plan approval, to the satisfaction of Project Coordinator and the Final Plans staff.

PLANNING

APPLICABLE DOCUMENTS AND PLANS:

DRB Stipulations

- Except as required by the City Code of Ordinances, Zoning Regulations, Subdivision Regulations, and the other stipulations herein, the site design and construction shall substantially conform to the following documents:
 - a. Architectural elements, including dimensions, materials, form, color, and texture, shall be constructed to be consistent with the plans submitted by city staff of 11/17/2005.
 - b. The location and configuration of all site improvements shall be constructed to be consistent with the site plan submitted by Entellus with a date provided on the plans by city staff of 11/17/2005.

LANDSCAPE DESIGN:

DRB Stipulations

- 2. Upon removal of the salvageable native plants the salvage contractor shall submit completed Native Plant Tracking Form as well as a list identifying the tag numbers of the plants surviving salvage operations to the City's Inspection Services Unit within 3 months from the beginning of salvage operations and/or prior to the issuance of the Certificate of Occupancy.
- 3. Cut and fill slopes shall be rounded to blend with the existing contours of the adjacent natural grades.
- 4. New plants provided in revegetated areas shall match the existing natural plant densities.
- 5. Plants shall be planted in an organic pattern to be consistent with the natural existing plant configuration.

 Ordinance
- A. All plants utilized shall be on the ELSO and ADWR-PHX plant lists.

ENGINEERING

The following stipulations are provided to aid the developer in submittal requirements, and are not intended to be all inclusive of project requirements. The developer shall submit engineering design reports and plans that demonstrate compliance with city ordinances, the <u>Scottsdale Revised Code</u> and the <u>Design Standards and</u> Policies Manual.

APPLICABLE DOCUMENTS AND PLANS:

6. Site Plan entitled Pima Road from Loop 101 to Deer Valley, and dated 11/17/05.

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CIVIL IMPROVEMENT PLAN REQUIREMENTS:

DRB Stipulations

7. Proposed improvement shall be approved by the City of Scottsdale Department of Transportation.

DRAINAGE AND FLOOD CONTROL:

DRB Stipulations

- 8. A final drainage report shall be submitted that demonstrates consistency with the conceptual drainage report approved in concept by the Planning and Development Services Department.
 - a. Before the approval of improvement plans by city staff, the developer shall submit two (2) hard copies and one (1) compact disc copy of the complete final drainage report and plan.
- 9. Basin Configuration:
 - a. Basin side slopes shall not be steeper than 4:1, and basin depths shall not exceed 3 feet.
 - b. Stormwater Storage on Paved Surfaces. Up to 50% of required stormwater storage may be provided in parking areas when the following conditions are met:
 - c. Storage system shall be designed to store first 30% of required runoff volume off paved areas (to avoid ponding of nuisance water on pavement).
 - d. Parking lot storage areas shall be designed so as to minimize interference with pedestrian traffic. Depth of water shall not exceed six inches within the parking area.

Ordinance

- B. On-site stormwater storage is required for the full 100-year, 2-hour storm event. The design of the storage basin capacity shall account for any proposed landscaping improvements. The landscaping improvements within the basins shall not reduce the capacity of the basins under the required volume.
 - (1) Basin bleed-off rates shall be set so that the storage basins do not drain completely in less than 24 hours. Storage basins must drain completely within 36 hours.
 - (2) Infiltration of stormwater through the basin floor is not acceptable as the sole means of draining the basin. Stormwater storage basins should be designed to meter flow to the historic out-fall point. Where an historic out-fall point does not exist (or metering is not possible), other methods of discharge such as pumps, etc. may be considered.
 - (3) Stormwater storage basins may not be constructed within utility easements or dedicated right-of-way (exceptions may be granted with written approval from appropriate utility company).
 - (4) Off-site runoff must enter and exit the site as it did historically.
 - (5) All development shall be designed to satisfactorily convey the 100-year peak discharge through the site without significant damage to structures.
- C. With the final improvement plans submittal to the Plan Review and Permit Services Division, the developer shall submit a final drainage report and plan, subject to City staff approval.
- D. Underground Stormwater Storage:
 - (1) Underground stormwater storage is prohibited unless approval is obtained from the City's Floodplain Administrator.
 - (2) Drywells are not permitted.
- E. Street Crossings:
 - (1) Watercourse crossings for roads shall be designed to provide for 100-year access to all lots by at least one route. Accessibility will be considered to exist if it can be shown by the engineer that at the time of the peak flow, the depth of flow over the road will not be greater than 1 foot.

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ROADWAY, INTERSECTION, AND ACCESS DESIGN:

Streets and other related improvements:

STREET NAME	STREET TYPE	R.O.W. DEDICATION	ROADWAY IMPROVEMENT	CURB TYPE	BIKE PATH, SIDEWALK, TRAILS
Pima	Major Arterial	75' **	6 lanes plus median and curb and gutter	Vertical	Per plans submitted

^{**} Additional R/W as needed for Turn and deceleration Lanes.

DRB Stipulations

Ordinance

F. Detailed striping and signage plan shall be submitted with final plans. The striping and signage plan shall include all existing improvements and striping within 300 feet of the limits of construction, and all signs, striping, or other traffic control devices proposed to accommodate phased and ultimate construction.

TRAFFIC SIGNALS:

DRB Stipulations

10. Poles and equipment necessary to upgrade the signal to current standards (including luminaires) provide with the application.

Ordinance

G. Public street lights shall be installed in accordance with City of Scottsdale Revised Code, Section 48-149.

Ordinance

11. Trail Easement:

- a. Prior to final plan approval, the 15-foot wide public trail easement shall be provided for trails shown on the plans that are located outside of the street ROW. Before any certificate of occupancy is issued for the site, the developer shall construct a minimum 8-foot wide public trail within the easement. The trail shall be buffered from parking areas and from vehicles as much as possible. The applicant shall be responsible for coordinating the approved trail alignment with the City's Trail Coordinator. The alignment shall be determined prior to submission of final plans.
- b. Signage shall be provided for all trails per the City's Design Standards & Policies Manual. The location and design of the signs and markers shall be shown on the final improvement plans to the satisfactions of Parks and Recreation staff.
- 12. Sight distance easements shall be dedicated over sight distance triangles.
 - a. Sight distance triangles must be shown on final plans to be clear of landscaping, signs, or other visibility obstructions between 2 feet and 7 feet in height.
 - b. Refer to the following figures: 5.3-26 and 5.3-27 of Section 5.3 of the City's Design Standards and

Ordinance

H. Drainage Easement:

(1) Drainage and flood control easements shall be obtained from the adjacent property owners were the limits of inundation based on the 100-year base flood elevation, and for all stormwater storage basins encroach outside of the City's right-of-way. Maintenance responsibility the drainage and flood control easements shall be determined at the time the easement(s) are dedicated to the City. Case 72-DR-2005 Page 4

- I. Waterline and Sanitary Sewer Easements:
 - (1) Before the issuance of any building permit for the site, the project manager shall assure the dedication to the City, in conformance with the <u>Scottsdale Revised Code</u> and the <u>Design Standards and Policies Manual</u>, all water easements necessary to serve the site.
- J. Public Utility Easement:
 - (1) Public Utility Easement shall be dedicated to cover all public utilities located out of the new roadway alignment.

WATER AND WASTEWATER STIPULATIONS

The following stipulations are provided to aid the developer in submittal requirements, and are not intended to be all-inclusive of project requirements. Water and sewer lines and services shall be in compliance with City Engineering Water and Sewer Ordinance, the <u>Scottsdale Revised Code</u> and Sections 4 and 5 of the <u>Design</u> Standards and Policies Manual.

WATER:

DRB Stipulations

13. Before the improvement plan submittal to the Plan Review and Permit Services Division, approval shall be obtained of the Water Basis of Design Report from the City's Water Resources Department. The report shall conform to the draft <u>Water and Wastewater Report Guidelines</u> available from the City's Water Resources Department.

Ordinance

K. The water system for this project shall meet required health standards and shall have sufficient volume and pressure for domestic use and fire protection.

WASTEWATER:

DRB Stipulations

14. Before the improvement plan submittal to the Plan Review and Permit Services Division, approval shall be obtained of the Wastewater Basis of Design Report from the City's Water Resources Department. The report shall conform to the draft <u>Water and Wastewater Report Guidelines</u> available from the City's Water Resources Department.

CONSTRUCTION REQUIREMENTS

DRB Stipulations

As-Built Plans.

- 15. As-Built Plans shall be provides based on the determination of the City of Scottsdale's Capital Project Management staff.
 - a. As-built plans shall be certified in writing by a registered professional civil engineer, using as-built data from a registered land surveyor.
 - b. As-built plans for drainage facilities and structures shall include, but are not limited to, streets, lot grading, storm drain pipe, valley gutters, curb and gutter, flood walls, culverts, inlet and outlet structures, dams, berms, lined and unlined open channels, storm water storage basins, underground storm water storage tanks, and bridges as determined by city staff.